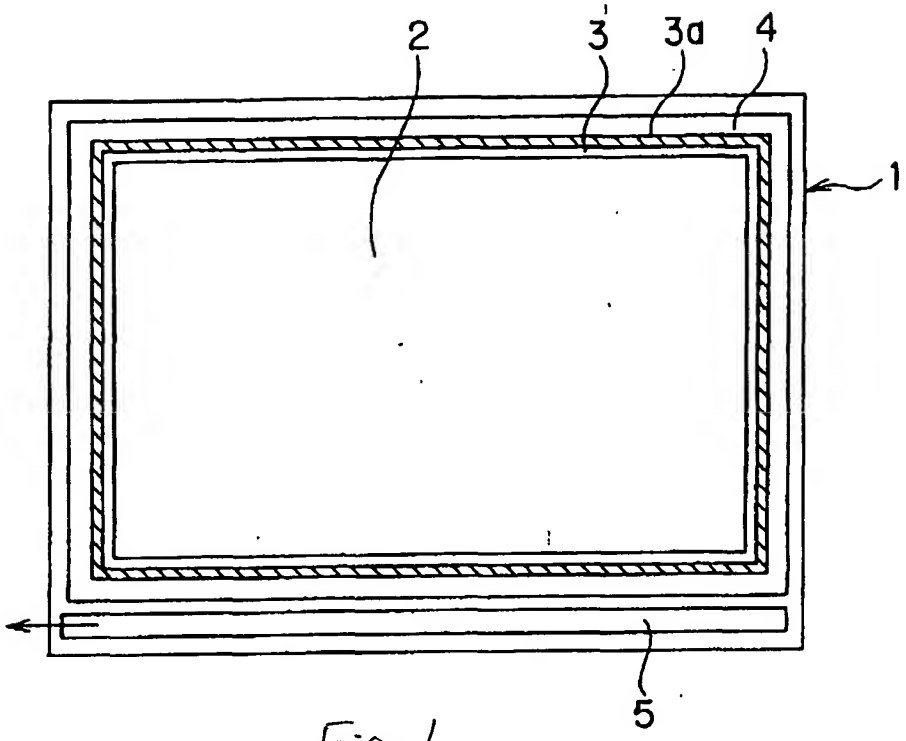


Fig. 1

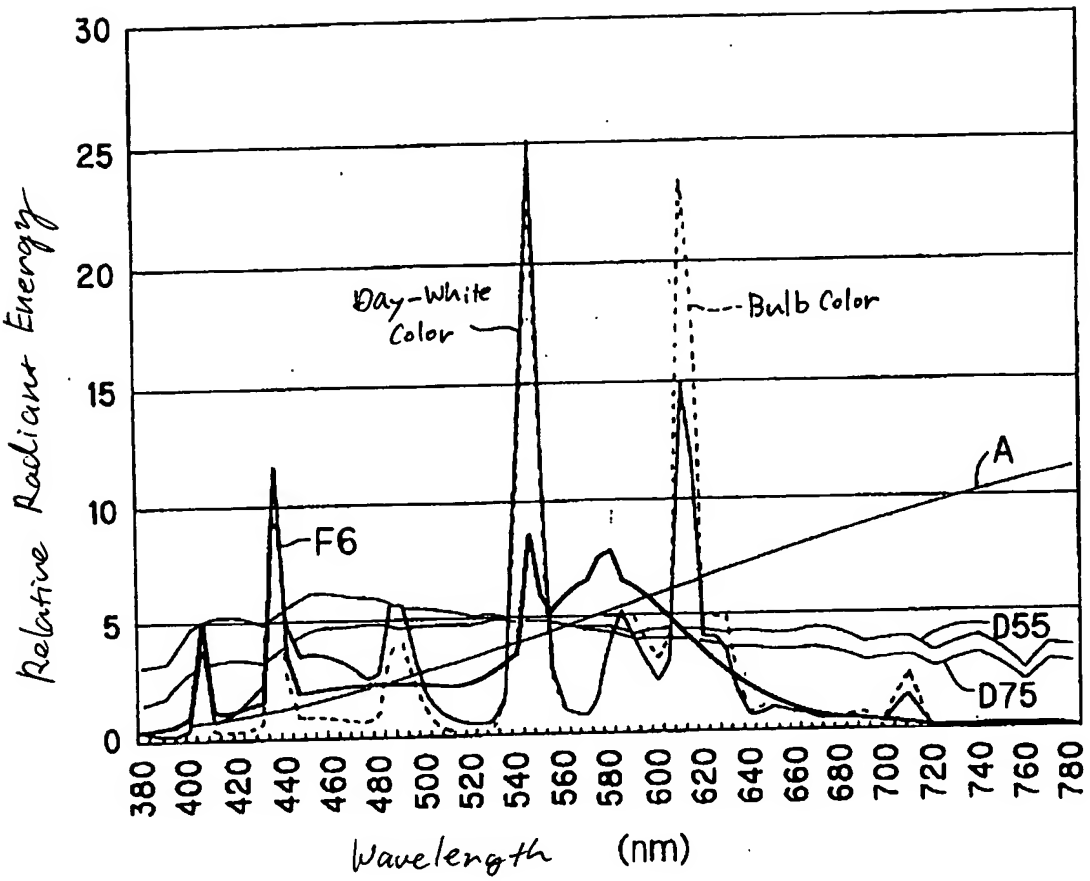

Relative Radiant Energy
30
25
20
15
10
5
0
Day-White Color
Bulb Color
A
F6
D55
D75
380
400
420
440
460
480
500
520
540
560
580
600
620
640
660
680
700
720
740
760
780
Wavelength (nm)

Fig. 2

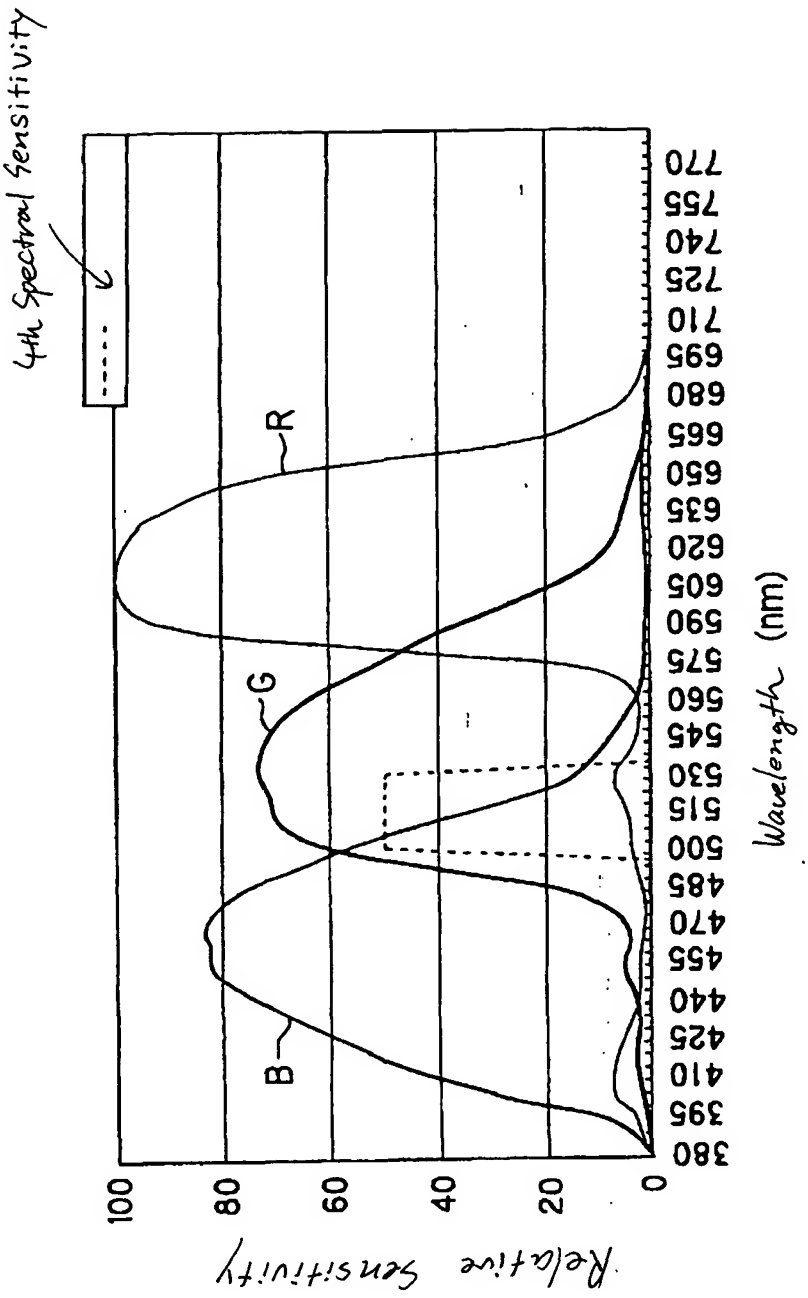

4th Spectral Sensitivity
R
G
B
100
80
60
40
20
0
Relative Sensitivity
380
395
410
425
440
455
470
485
500
515
530
545
560
575
590
605
620
635
650
665
680
695
710
725
740
755
770
Wavelength (nm)

Fig. 3

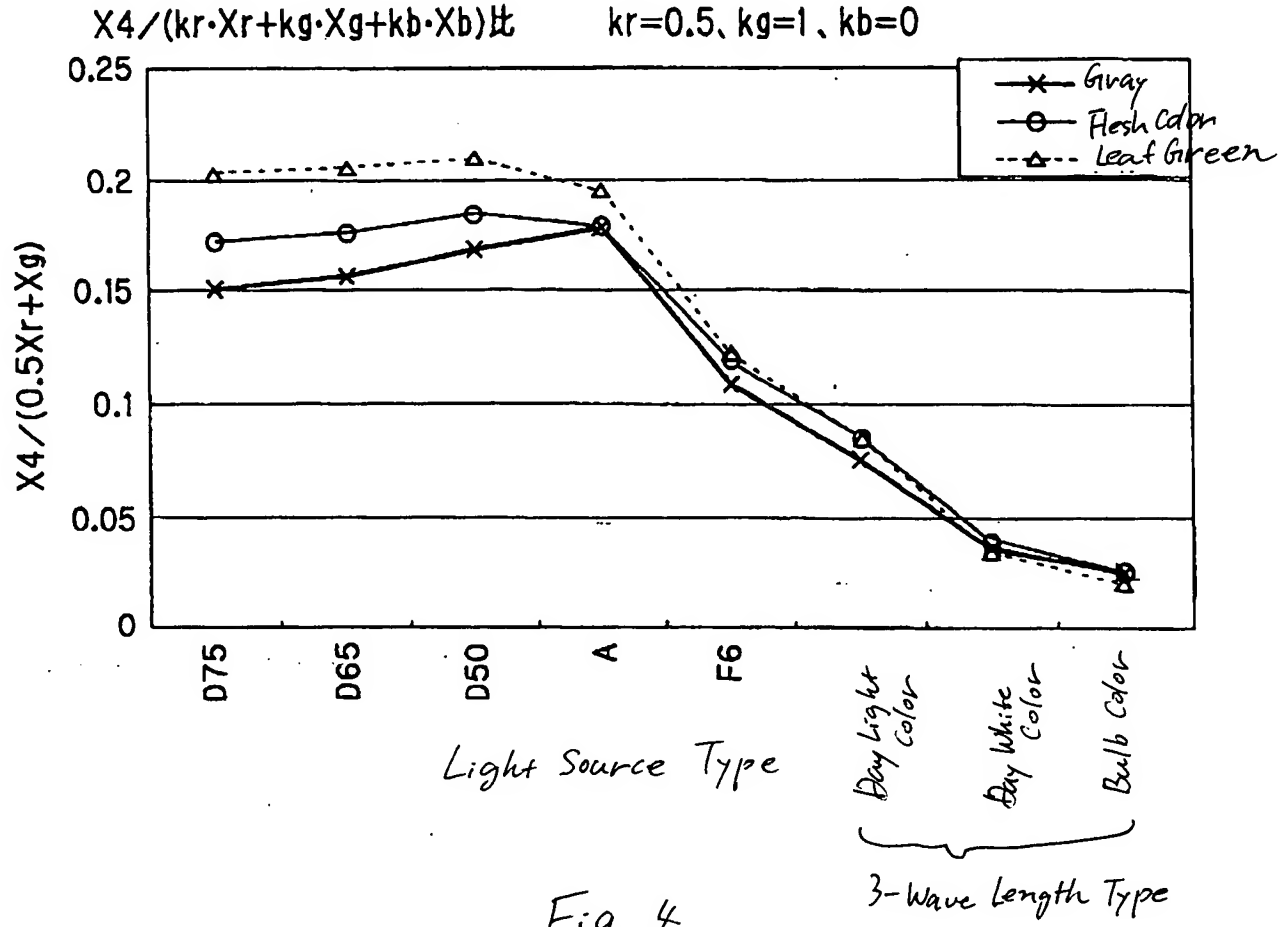

X4/(kr·Xr+kg·Xg+kb·Xb)比
kr=0.5、kg=1、kb=0
0.25
0.2
0.15
0.1
0.05
0
X4/(0.5Xr+Xg)
Gray
Flesh Color
Leaf Green
D75
D65
D50
A
F6
Day Light Color
Day White Color
Bulb Color
Light Source Type
3-Wave Length Type

Fig. 4

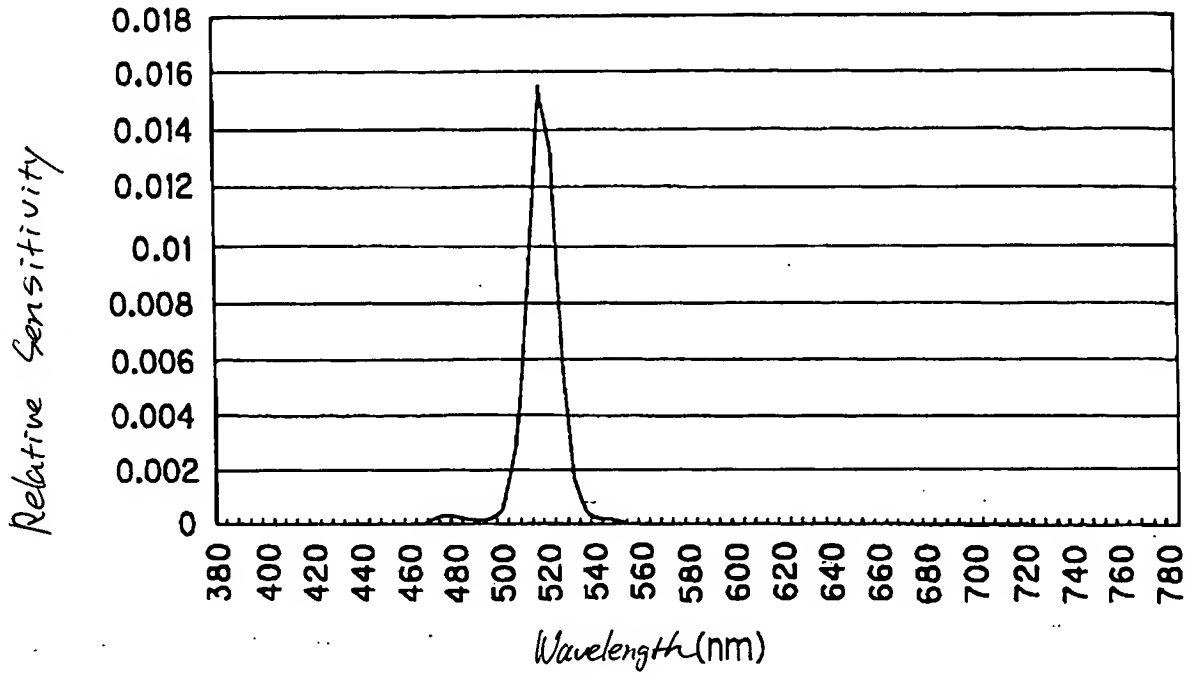

Relative Sensitivity
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
380
400
420
440
460
480
500
520
540
560
580
600
620
640
660
680
700
720
740
760
780
Wavelength (nm)

Fig. 5

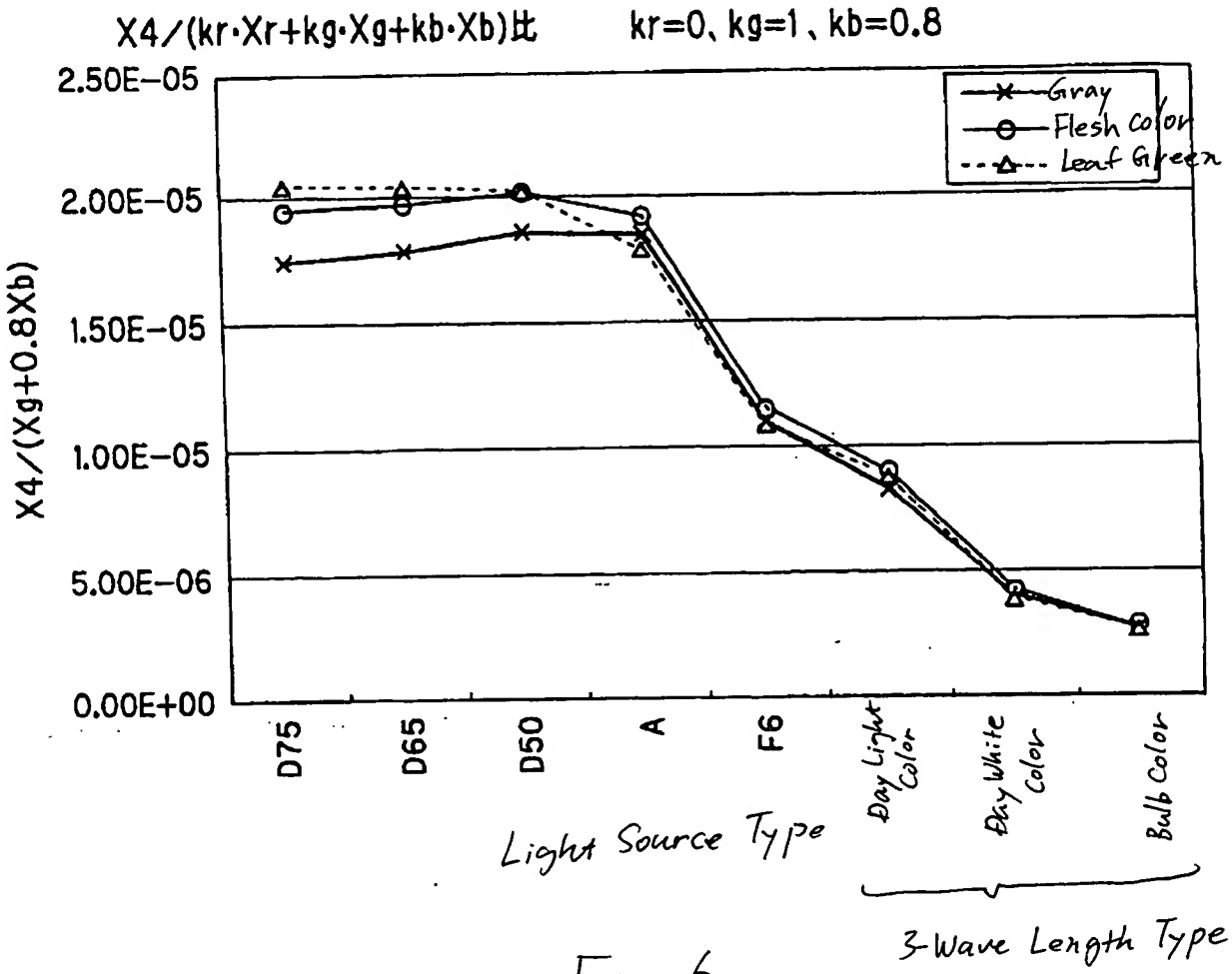

X4/(kr·Xr+kg·Xg+kb·Xb)比 kr=0、kg=1、kb=0.8
2.50E-05
2.00E-05
1.50E-05
1.00E-05
5.00E-06
0.00E+00
X4/(Xg+0.8Xb)
Gray
Flesh Color
Leaf Green
D75
D65
D50
A
F6
Day Light Color
Day White Color
Bulb Color
Light Source Type
3-Wave Length Type

Fig. 6

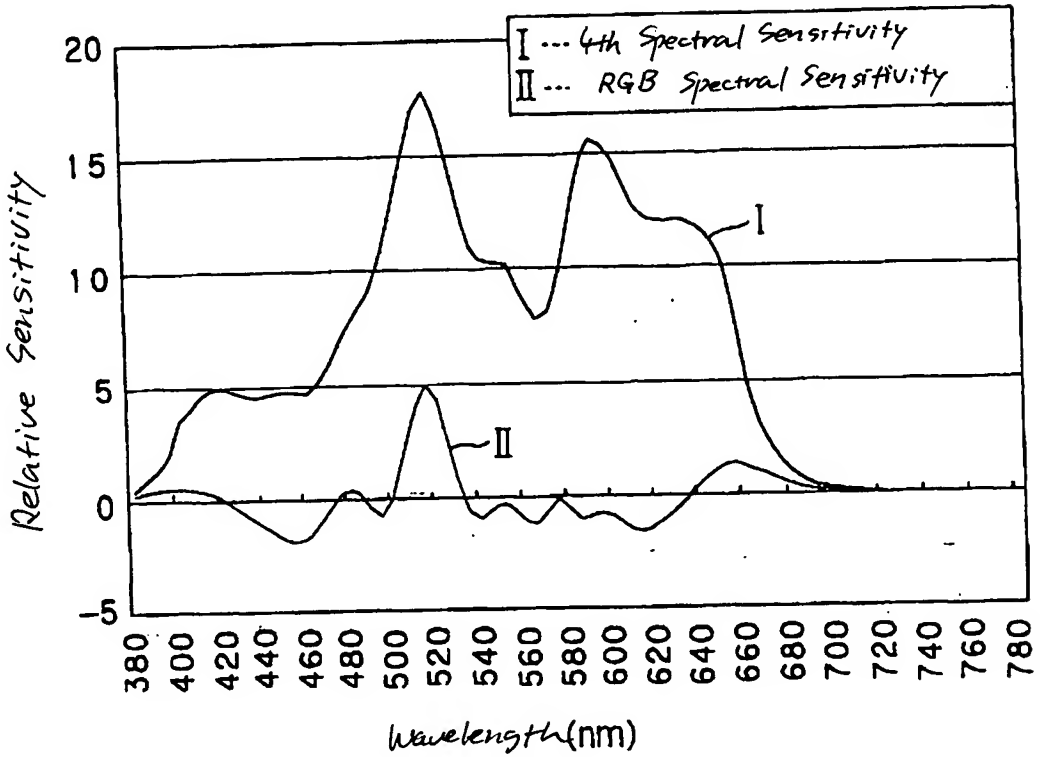

I --- 4th Spectral Sensitivity
II --- RGB Spectral Sensitivity
Relative Sensitivity
20
15
10
5
0
-5
I
II
380
400
420
440
460
480
500
520
540
560
580
600
620
640
660
680
700
720
740
760
780
Wavelength(nm)

Fig. 7

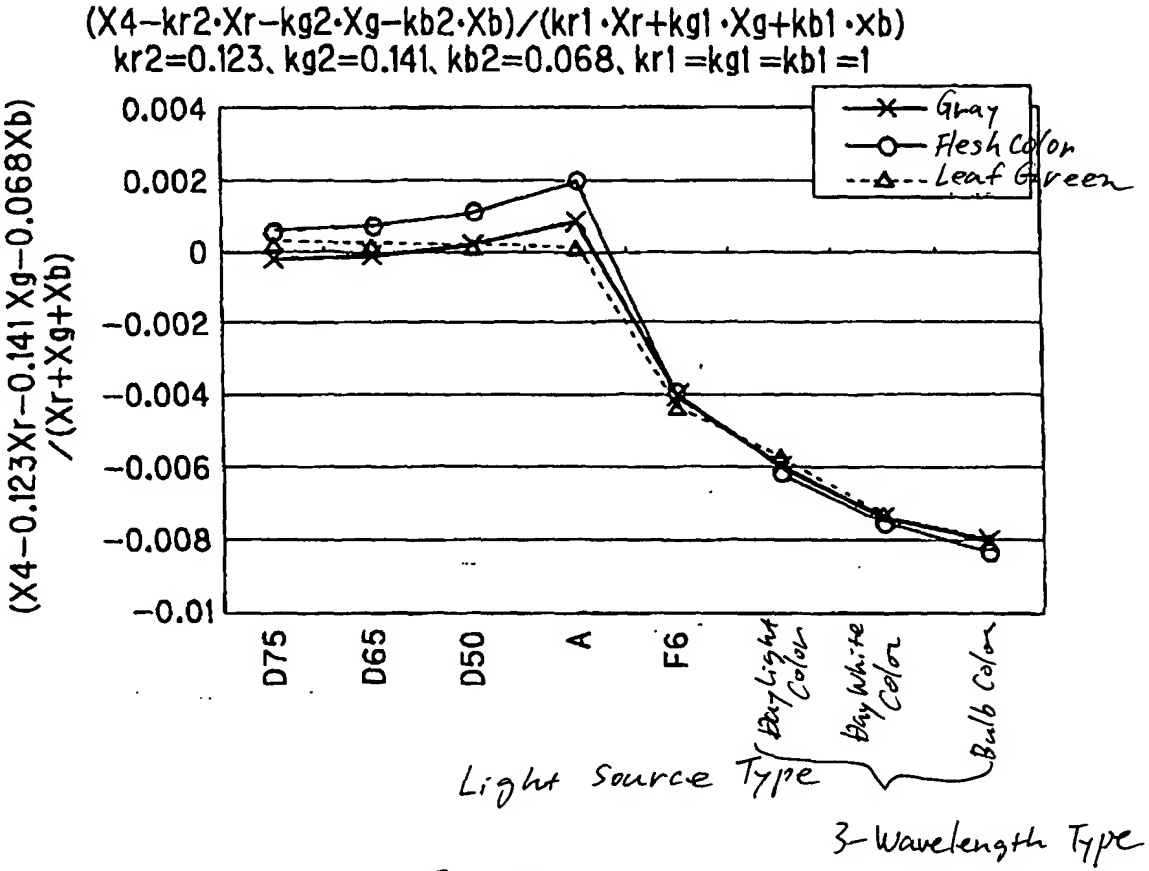

(X4−kr2·Xr−kg2·Xg−kb2·Xb)/(kr1·Xr+kg1·Xg+kb1·Xb)
kr2=0.123、kg2=0.141、kb2=0.068、kr1=kg1=kb1=1
(X4−0.123Xr−0.141Xg−0.068Xb)/(Xr+Xg+Xb)
0.004
0.002
0
−0.002
−0.004
−0.006
−0.008
−0.01
Gray
Flesh Color
Leaf Green
D75
D65
D50
A
F6
Day Light Color
Day White Color
Bulb Color
Light Source Type
3-Wavelength Type

Fig. 8

Fig. 9

(16) Light emitting section
(17) Light receiving section
(18) Lens driving section
(19) Diaphragm driving section
(20) Image pick-up unit driving section
(21) Operating section
(22) Analog signal processing section
(24) Main memory
(25) Memory control section
(26) Digital signal processing section
(27) Compressing and extending section
(28) Integrating section
(29) Recording medium
(30) External memory control section
(31) Display section
(32) Display control section

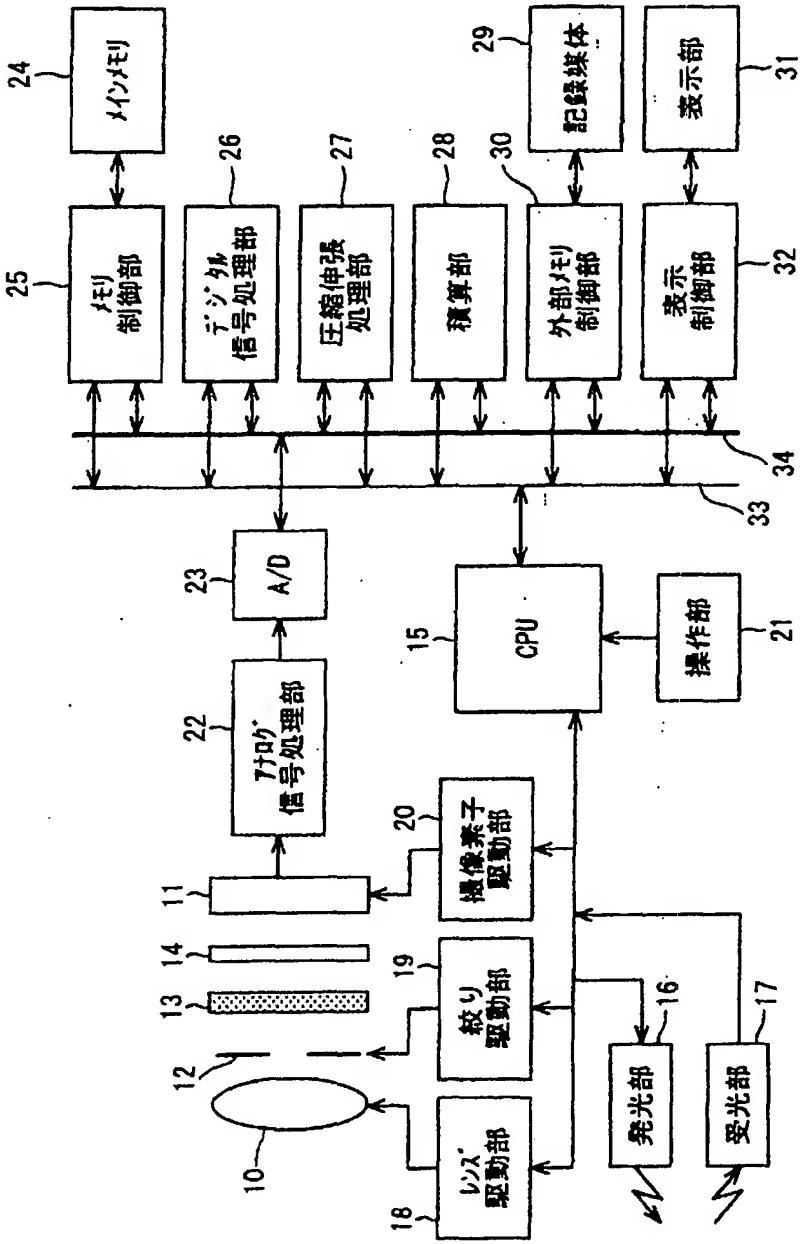
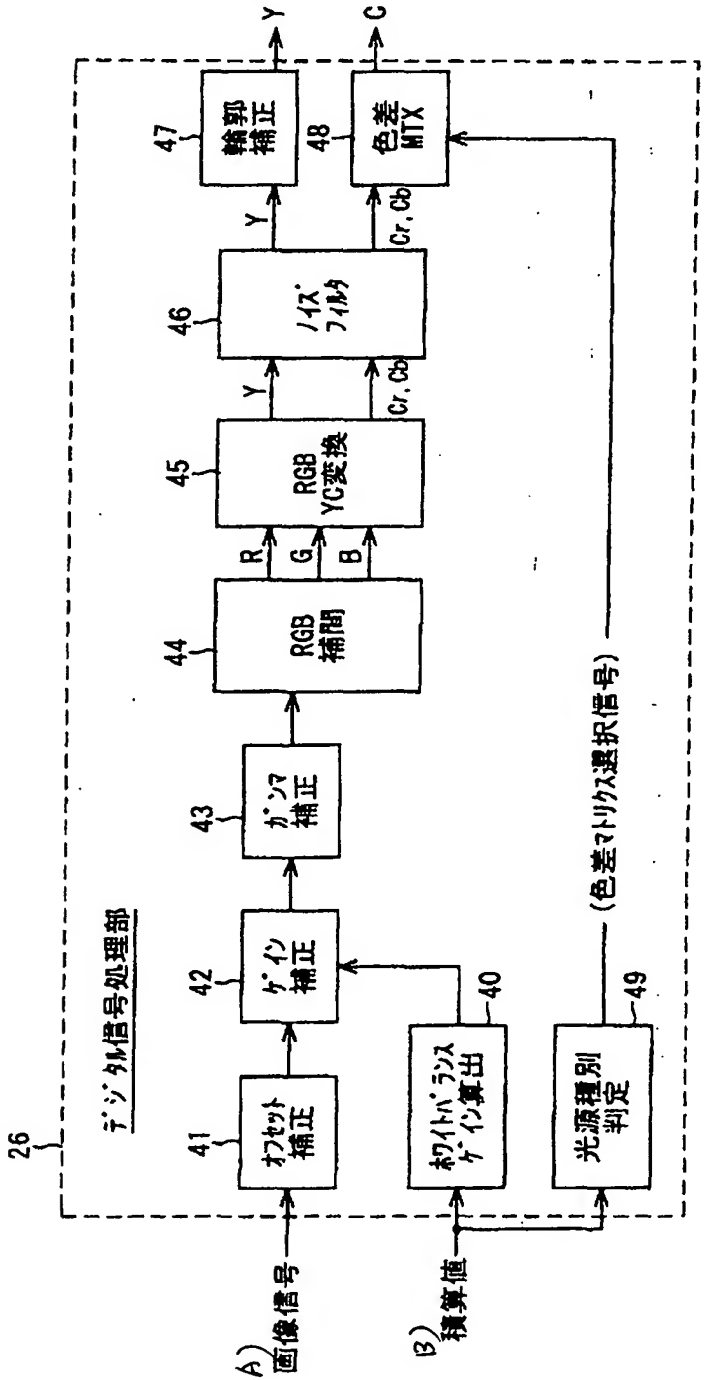


Fig. 10

(26) Digital signal processing section
(40) White balance gain calculation
(41) Offset correction
(42) Gain correction
(43) Gamma correction
(44) RGB interpolation
(45) RGB YG conversion
(46) Noise filter
(47) Contour correction
(48) Color difference MTX
(49) Light source type decision

A) Image signal
B) Integrated value
C) Color difference matrix selection signal



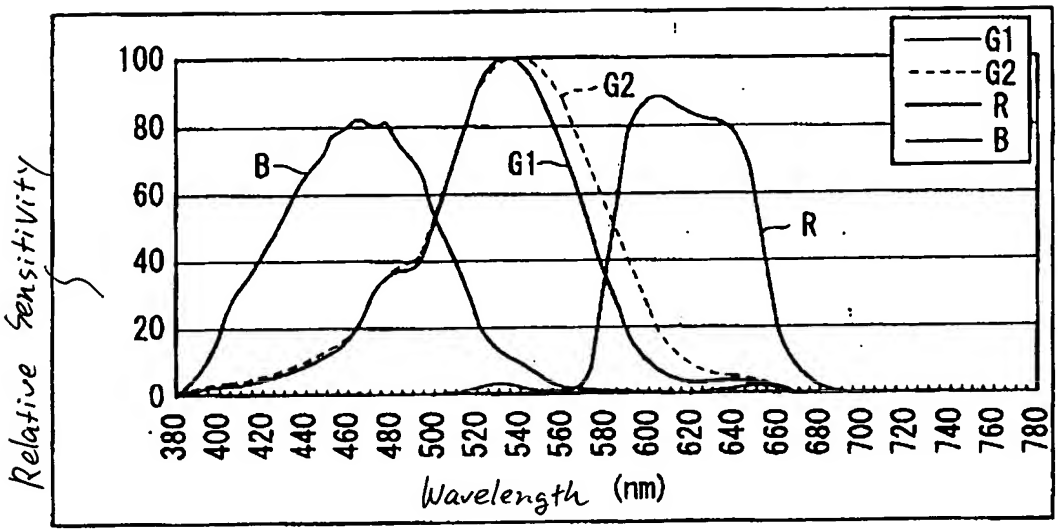

Relative Sensitivity
100
80
60
40
20
0
380
400
420
440
460
480
500
520
540
560
580
600
620
640
660
680
700
720
740
760
780
Wavelength (nm)
B
G1
G2
R
G1
G2
R
B

Fig. 11

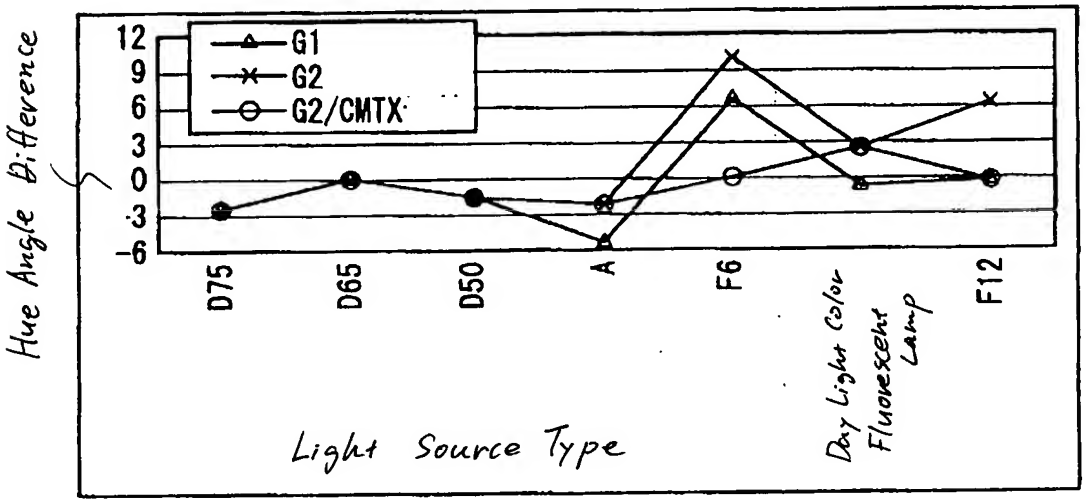

Hue Angle Difference
12
9
6
3
0
-3
-6
G1
G2
G2/CMTX
D75
D65
D50
A
F6
Day Light Color Fluorescent Lamp
F12
Light Source Type

Fig. 12

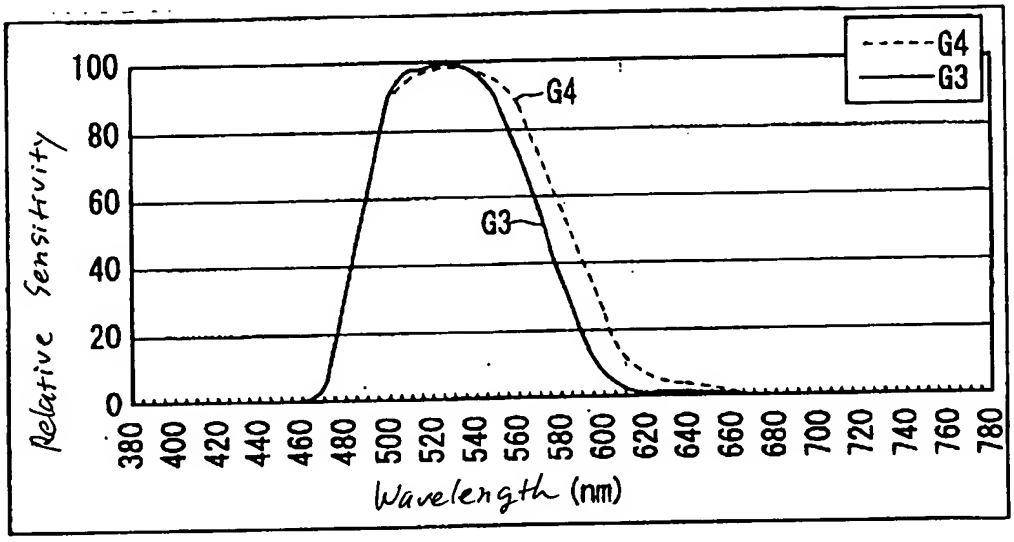

G4
G3
100
80
60
40
20
0
Relative Sensitivity
380
400
420
440
460
480
500
520
540
560
580
600
620
640
660
680
700
720
740
760
780
Wavelength (nm)

Fig. 13

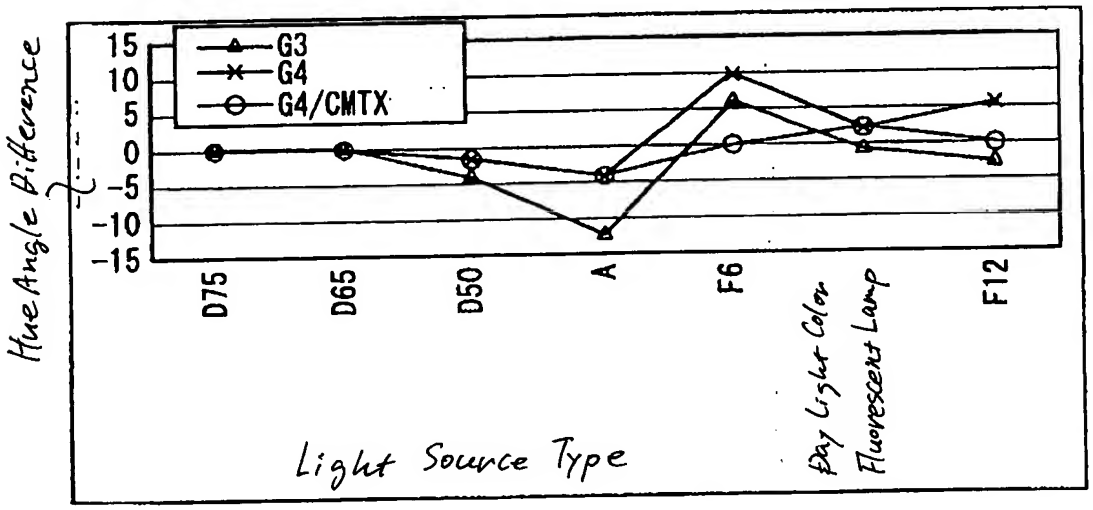

G3
G4
G4/CMTX
15
10
5
0
-5
-10
-15
Hue Angle Difference
D75
D65
D50
A
F6
Day Light Color Fluorescent Lamp
F12
Light Source Type

Fig. 14

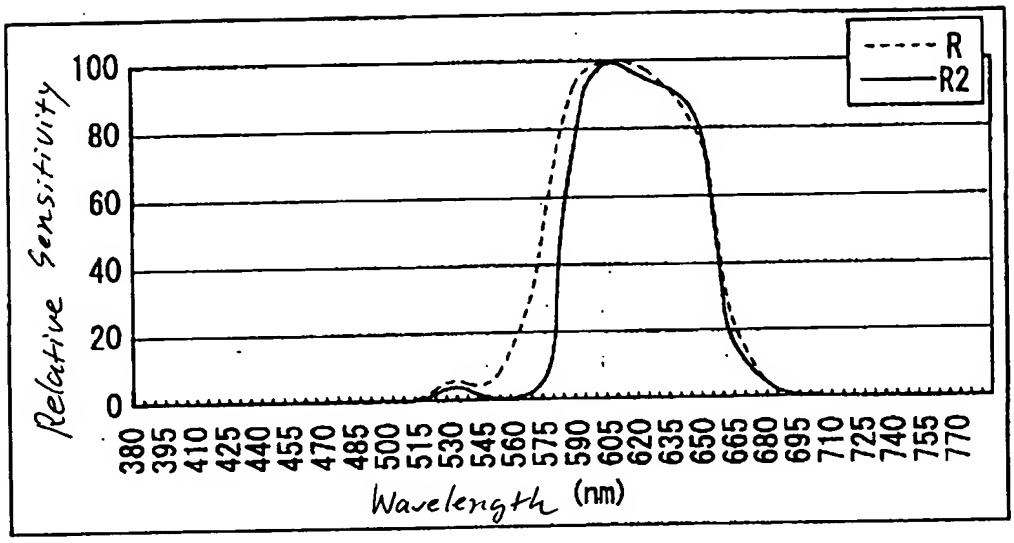

R
R2
Relative Sensitivity
100
80
60
40
20
0
380
395
410
425
440
455
470
485
500
515
530
545
560
575
590
605
620
635
650
665
680
695
710
725
740
755
770
Wavelength (nm)

Fig. 15

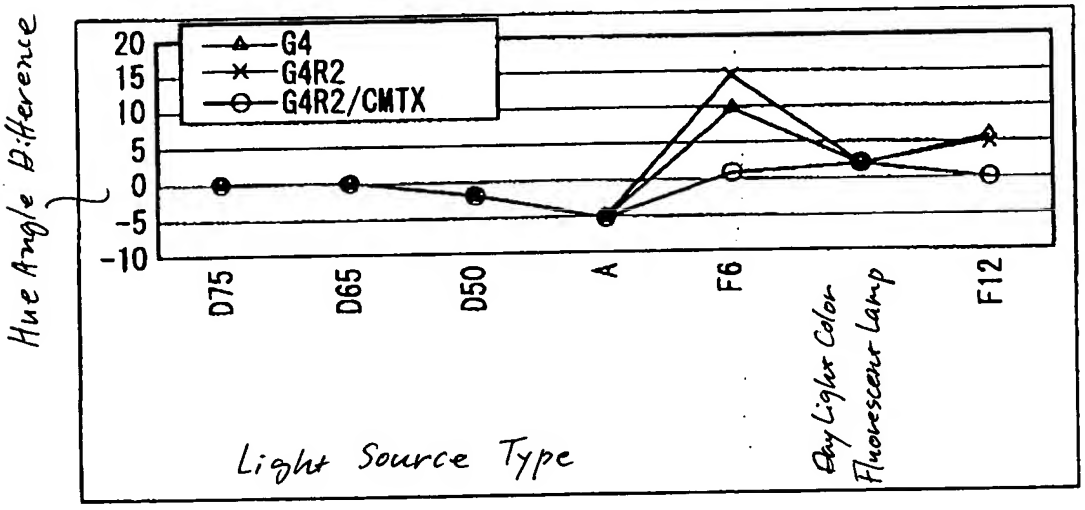
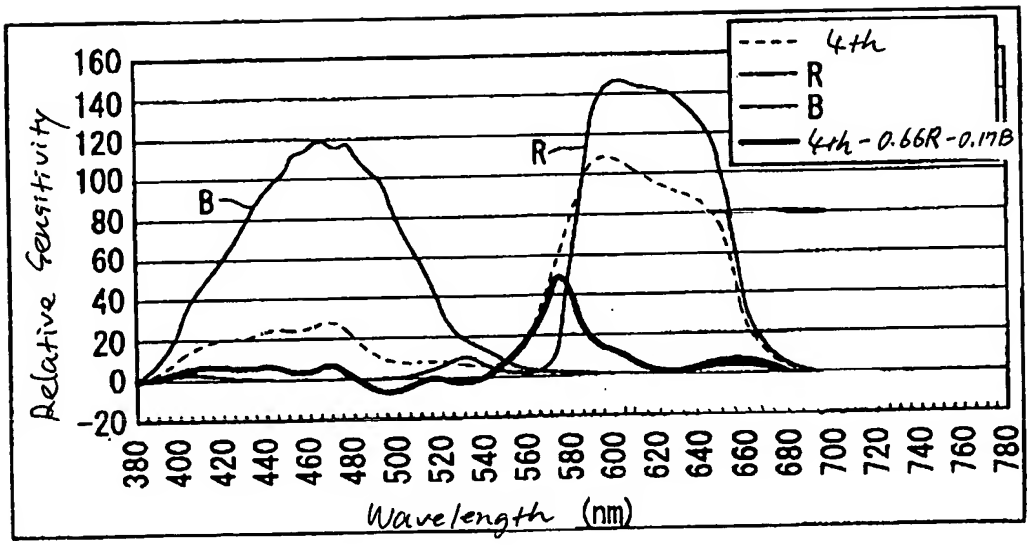

G4
G4R2
G4R2/CMTX
Hue Angle Difference
20
15
10
5
0
-5
-10
D75
D65
D50
A
F6
Day Light Color Fluorescent Lamp
F12
Light Source Type

Fig. 16

Fig. 17


4th
R
B
4th - 0.66R - 0.17B
Relative Sensitivity
160
140
120
100
80
60
40
20
0
-20
B
R
380
400
420
440
460
480
500
520
540
560
580
600
620
640
660
680
700
720
740
760
780
Wavelength (nm)

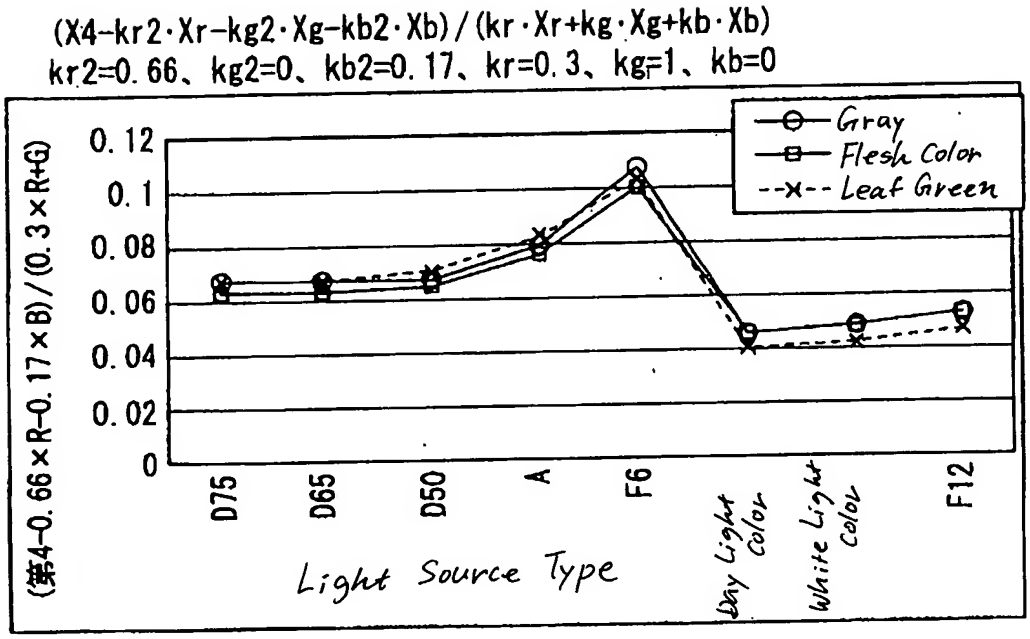

(X4-kr2·Xr-kg2·Xg-kb2·Xb)/(kr·Xr+kg·Xg+kb·Xb)
kr2=0.66、kg2=0、kb2=0.17、kr=0.3、kg=1、kb=0
(第4-0.66×R-0.17×B)/(0.3×R+G)
0.12
0.1
0.08
0.06
0.04
0.02
0
Gray
Flesh Color
Leaf Green
D75
D65
D50
A
F6
Day Light color
White Light color
F12
Light Source Type

Fig.18

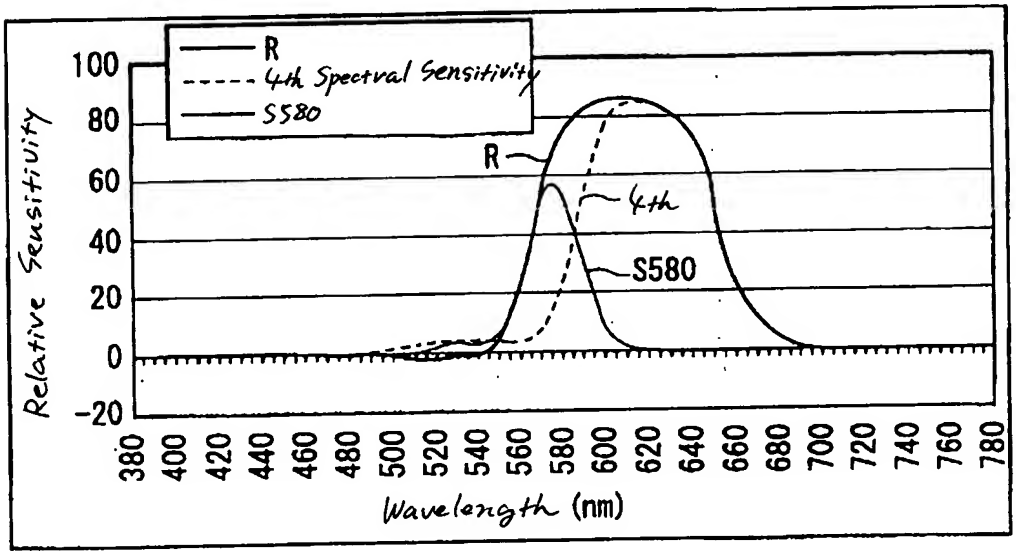

R
4th Spectral Sensitivity
S580
Relative Sensitivity
100
80
60
40
20
0
-20
380
400
420
440
460
480
500
520
540
560
580
600
620
640
660
680
700
720
740
760
780
Wavelength (nm)

Fig.19

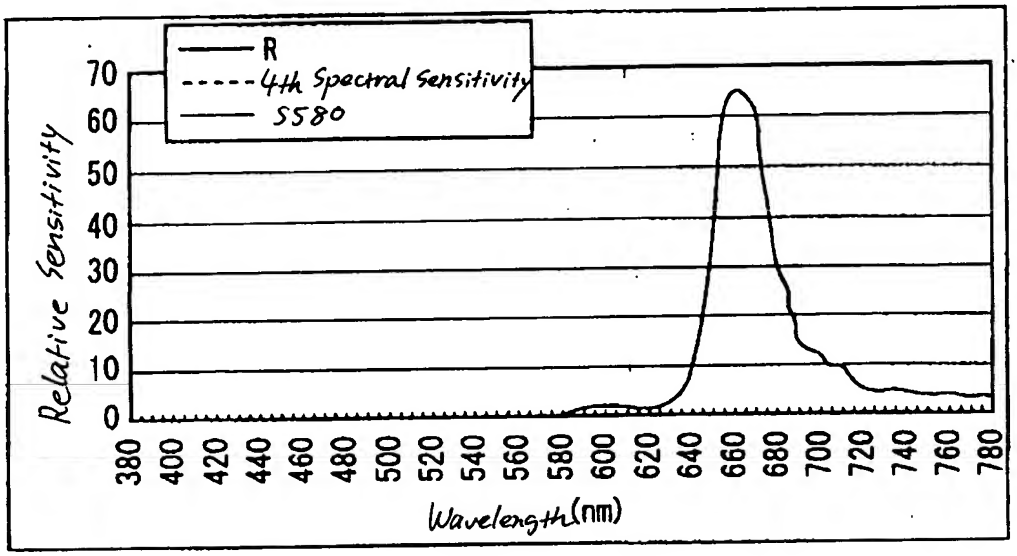

R
4th Spectral Sensitivity
5580
Relative Sensitivity
70
60
50
40
30
20
10
0
380
400
420
440
460
480
500
520
540
560
580
600
620
640
660
680
700
720
740
760
780
Wavelength(nm)

Fig. 20

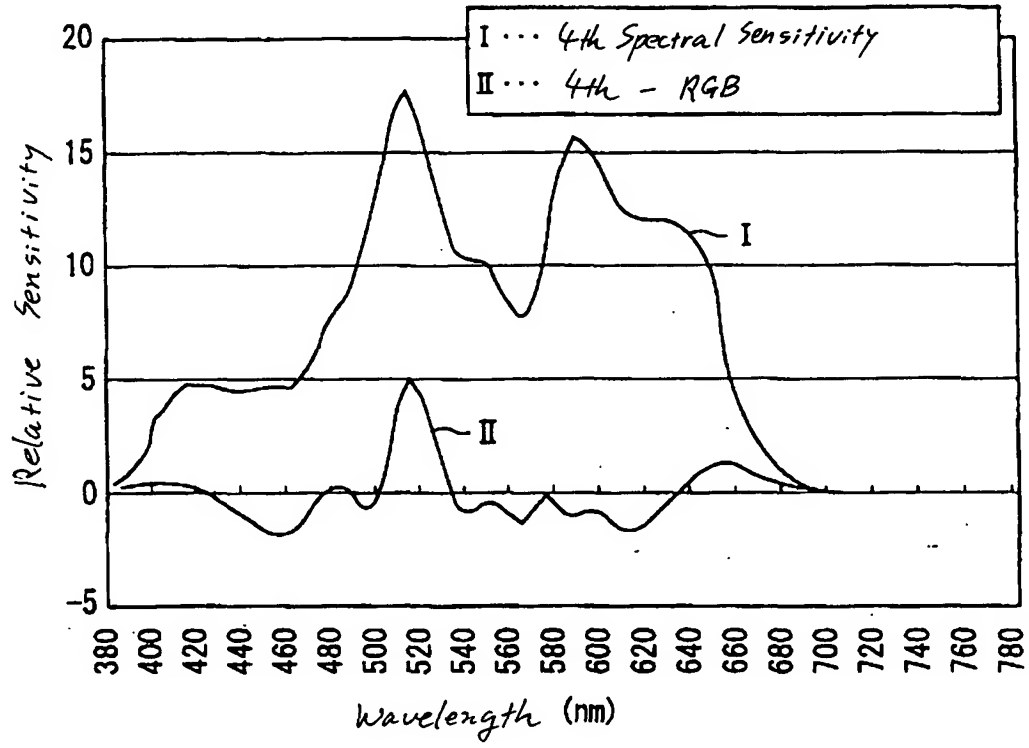


Fig. 21

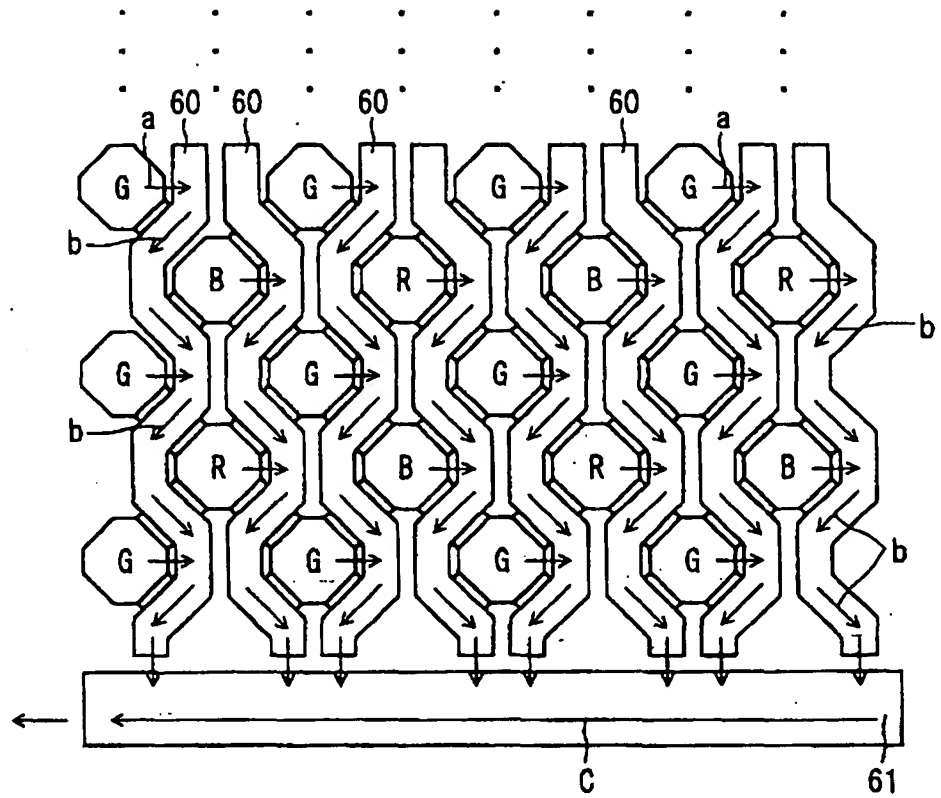


Fig. 22

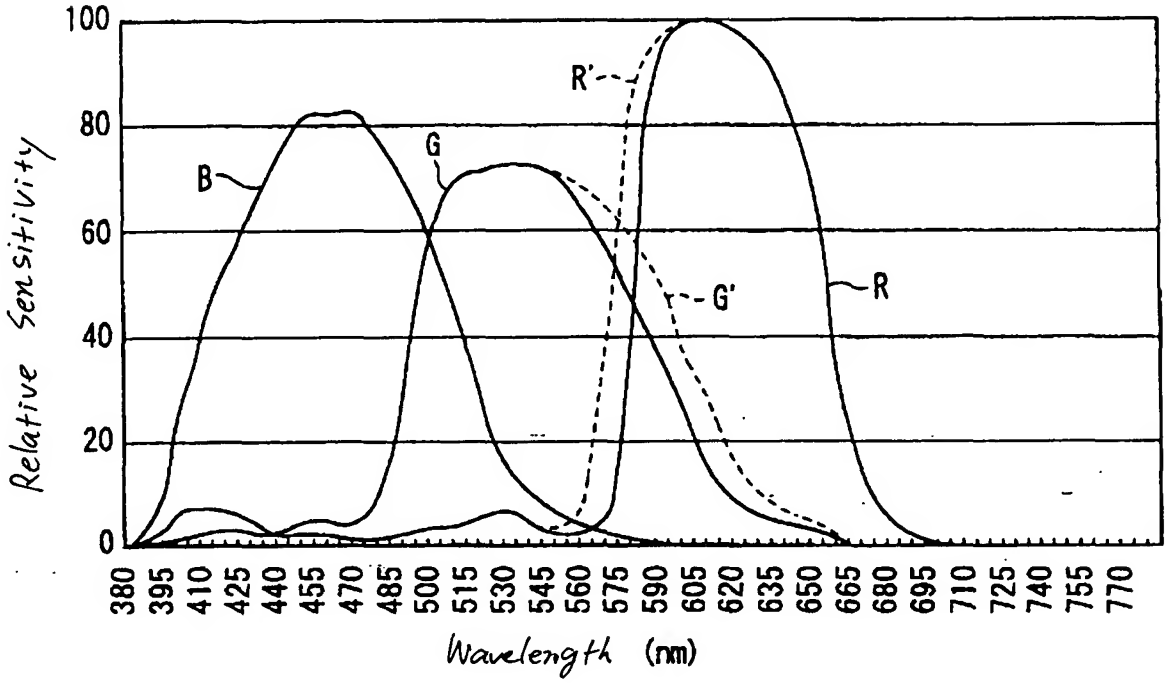


Fig. 23